10/1/0 8259 0 07101

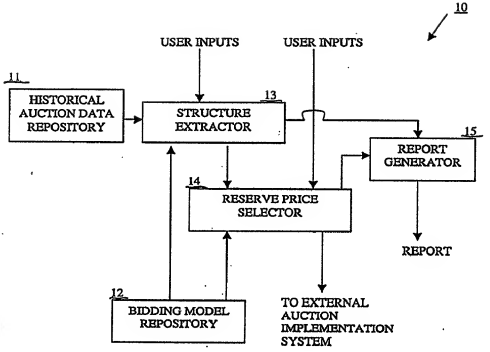

FIGURE 1

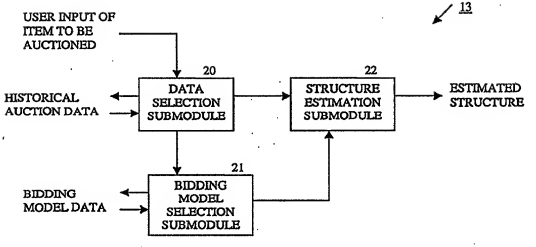
13
USER INPUT OF ITEM TO BE AUCTIONED
20
DATA SELECTION SUBMODULE
HISTORICAL AUCTION DATA
22
STRUCTURE ESTIMATION SUBMODULE
ESTIMATED STRUCTURE
21
BIDDING MODEL SELECTION SUBMODULE
BIDDING MODEL DATA

FIGURE 2

10/1/07 09:22:06

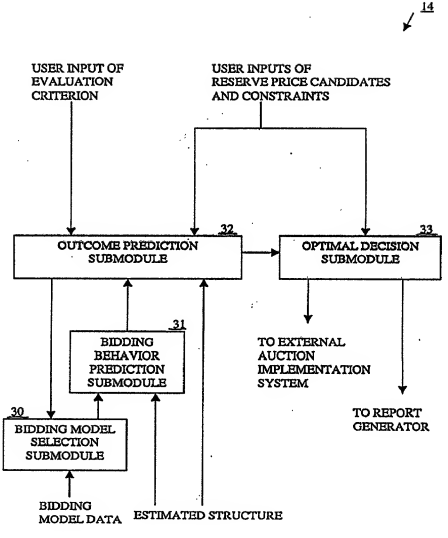

FIGURE 3

1001-1-8326960

DATA SELECTION SUBMODULE

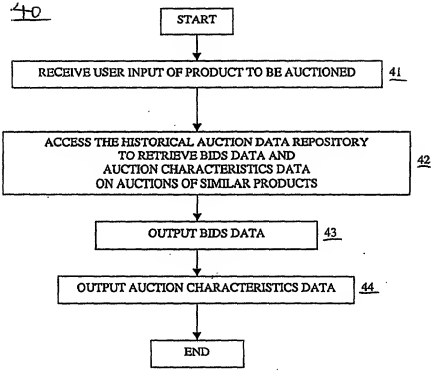

FIGURE 4

BIDDING MODEL SELECTION SUBMODULE

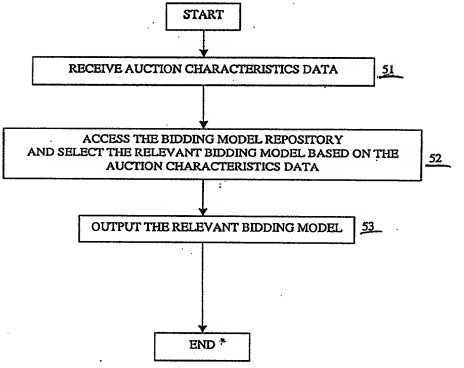

FIGURE 5

EP 1 074 001 A2

STRUCTURE ESTIMATION SUBMODULE

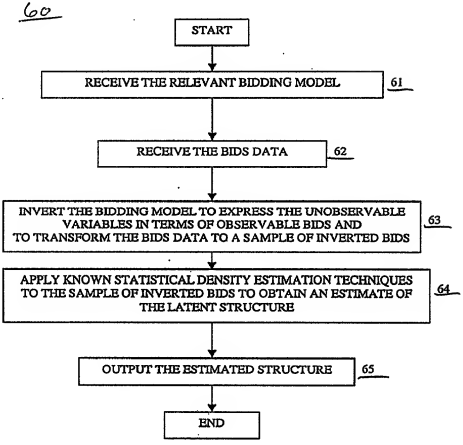

FIGURE 6

US007028228B2

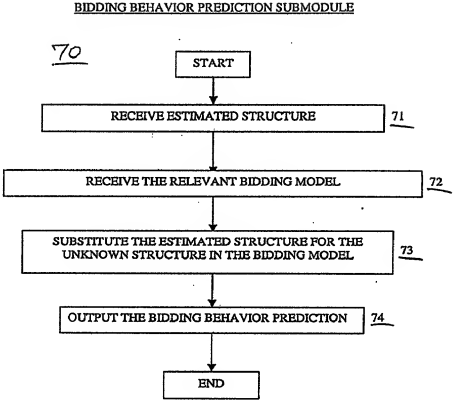

FIGURE 7

1001.0826209.0

OUTCOME PREDICTION SUBMODULE

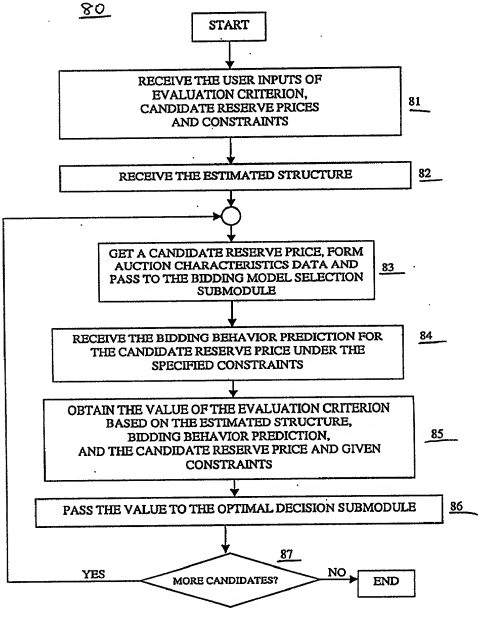

FIGURE 8

09992928-071001

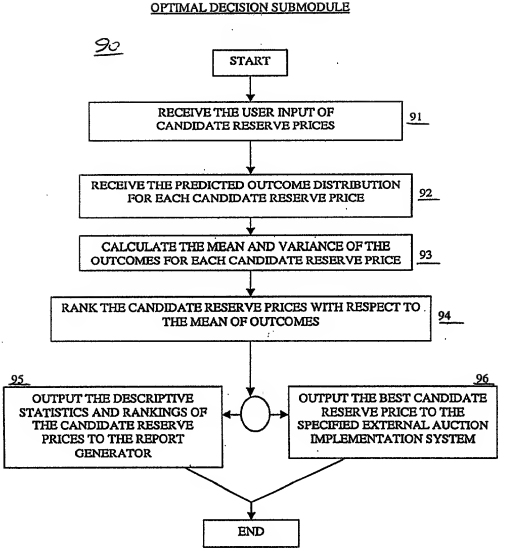

FIGURE 9

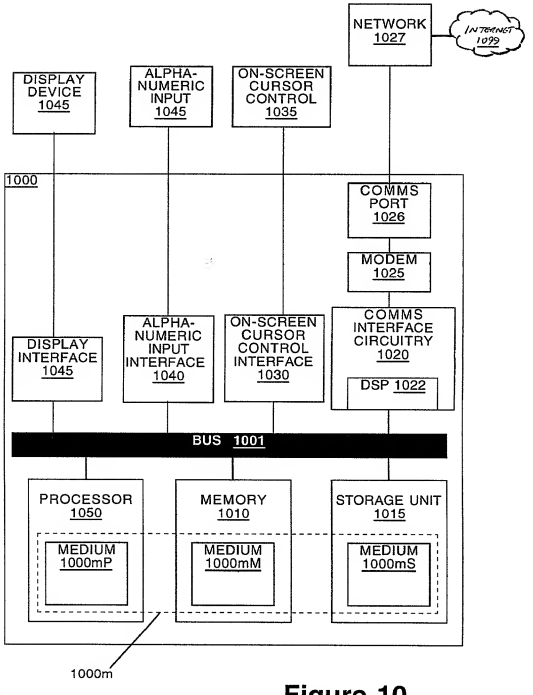

Figure 10

T007/0'826206O

HISTORICAL AUCTION DATA REPOSITORY

Historical Auction Data Repository contains data on past auctions. For the purposes of present invention, we assume that the following variables are observed for each auction in the database.

Auction:
- Auction ID
- Further Auction Characteristics

Auctioned Item:
- Item ID
- Name
- Quantity
- Description
- Further Item Characteristics

Mechanism:
- Auction Format
- Reserve price
- Further Mechanism Characteristics

Bidders:
- Bidder ID
- Segment ID
- Further Bidder Characteristics

Bids:
- Identities of participating bidders
- Bids submitted by participating bidders

Outcomes:
- Assigned payments for each bidder
- Assigned quantities for each bidder

FIGURE 11.A

"07/20/2002 09:25:29"

AUCTION CHARACTERISTICS:

- Auction ID
- Item ID
- Item Name
- Quantity
- Dates:
  - Announcement
  - Start
  - Close
- Seller/Buyer ID
- Auction Mechanism Characteristics
- Invited Bidders' IDs
- Participating Bidders' IDs and Bids, Quantities
- Outcome:
  - Assigned Price for each bidder
  - Assigned Quantities for each bidder
- Fees:
  - Shipping & Handling
  - Taxes
  - Auctioneer Fees:
    - Posting Fee
    - Ad Valorem Fee

FIGURE 11.B

BIDS:

- Bid ID
- Auction ID
- Item ID
- Bidder ID
- Bid Time Stamp
- Price Bid
- Bid Type
  - Proxy
  - Direct
- Quantity Desired
- Minimum Quantity
- Currency

FIGURE 11.C

MECHANISM CHARACTERISTICS:

- Format
  - English
  - Dutch
  - Sealed Bid First Price
  - Sealed Bid Second Price
  - Vickrey
  - etc
- Buy/Sell
- Entry Rule
  - Open
    - Free
    - Fee
  - Invitation
    - Free
    - Fee
- Reserve Price
  - Secret
  - Open
- Start Price
- Bid Increment
  - Fixed
  - Relative
- Closing Rule
  - Inactivity Time
  - Fixed Closing Time

FIGURE 11.D

ITEM CHARACTERISTICS:

Item ID
Name
Description
Location
SKU
Manufacturer
Model Number
Condition
Warranty
Weight
Weight Unit
Measurement Unit
Currency
List Price
etc

FIGURE 11.E

BIDDER CHARACTERISTICS:

- ID
- Segment ID
- Name
- Address
- General Information
- Socio Demographic Information
- Etc

SELLER/BUYER CHARACTERISTICS:

- Seller/Buyer ID
- Name
- Address
- General Information
- Socio Demographic Information
- Etc

FIGURE 11.F

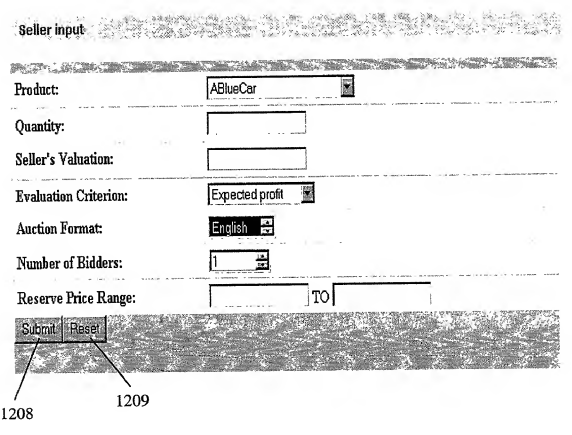
1200
Seller input
1201
Product:
ABlueCar
1202
Quantity:
1203
Seller's Valuation:
1204
Evaluation Criterion:
Expected profit
1205
Auction Format:
English
1206
Number of Bidders:
1
1207
Reserve Price Range:
TO
Submit
Reset
1208
1209

FIGURE 12

1300 RESERVE PRICE REPORT

1310 INPUTS:

Product:	ABlueCar
Quantity:	1
Seller's Valuation:	$10
Evaluation Criterion:	Expected Profit
Auction Format:	Sealed-bid first-price
Number of Bidders:	5
Reserve Price Range:	$0 TO $100

1320 RESULTS:

1321	Reserve price (in dollars)	0	10	20	30	...
1322	Expected payoff (in dollars)	60	75	80	70	...
1323	Standard deviation of payoff (in dollars)	15	17	20	25	...

1330

OPTIMAL DECISION:	
Optimal Reserve Price:	$20
Expected Payoff:	$80
Standard Deviation of Payoff:	$20

FIGURE 13

09502928 - 071201

09602928 - 071001

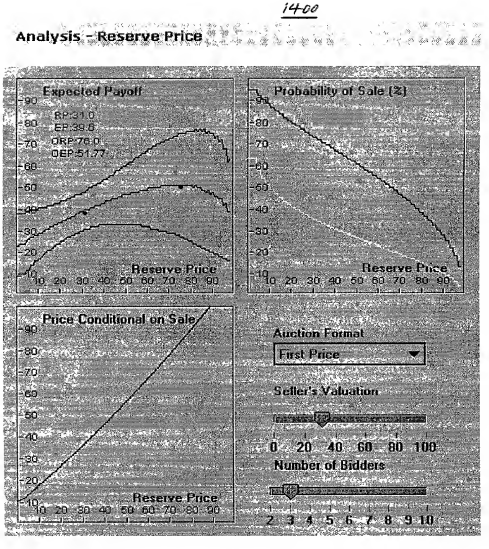

FIGURE 14

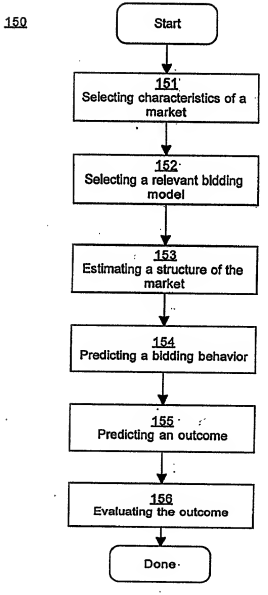
150
Start
151
Selecting characteristics of a market
152
Selecting a relevant bidding model
153
Estimating a structure of the market
154
Predicting a bidding behavior
155
Predicting an outcome
156
Evaluating the outcome
Done

Fig. 15